



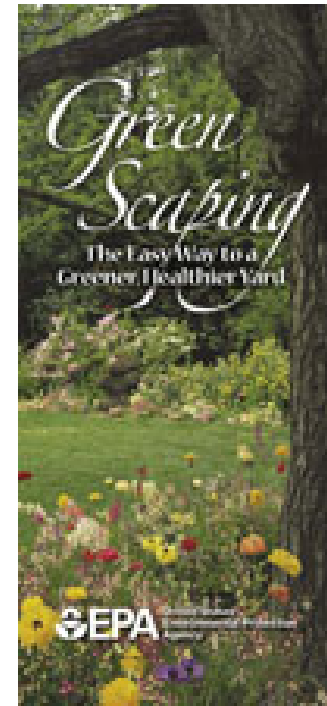
GreenScapes

Environmentally Beneficial Landscaping

***Save Time and Money and Have a
Greener, Healthier Yard!***

GreenScaping:

- Reduce use of high maintenance plants and all that watering, fertilizing, and pruning
- Use low maintenance native plants and grasses
- Converting excess lawn area into natural habitat
- Reduce/ prevent pollution
- Conserve natural resources
- Maximize ecological function
- Save time and money
- Smart and good looking!

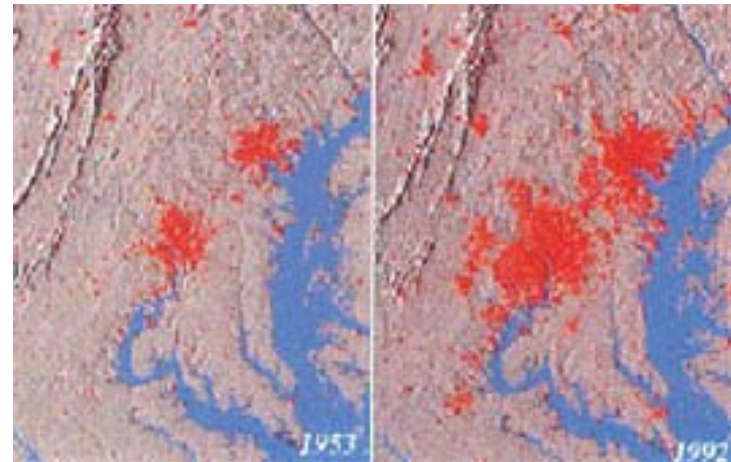


Why GreenScape?

Your Yard Can Make a Difference!

- Loss of habitat to development
- Loss of species to extinction
- Exotic plants escape and invade

Baltimore & Washington



Why GreenScape? Air Pollution

Lawn and Garden Equipment

- Emit 5% of ozone-forming VOCs in large urban areas₁
- 1 hour of lawn mowing = 100 miles car driving₂
- VOCs linked to adverse health effects, global warming

Source: 1) EPA -420-F-98-025 August 1998

2) <http://www.peoplepoweredmachines.com>



Why GreenScape? Solid Waste

- Over 34 million tons of yard waste (grass, leaves, branches, etc.) are generated annually.
- Grasscycle – don't bag when you mow
- Compost - why throw away valuable organic matter you can use as mulch or to build soil?
- Hold the bag – buy mulch in bulk
- Recycle your plastic plant pots.



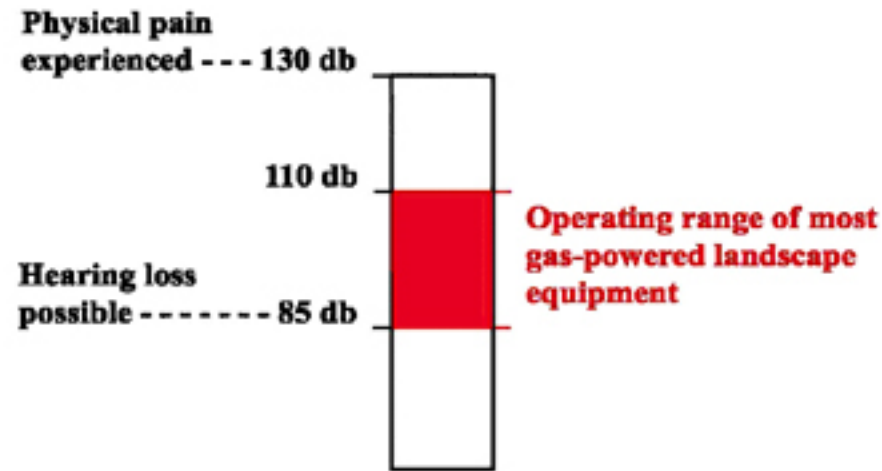
Why GreenScape? Save Time & Money

- Average homeowner spends 40 hours/year mowing
- 1 acre lawn costs \$400-700/year to maintain



Why GreenScape? Noise Pollution

- Health hazard to equipment operator
- Quiet our noisy neighborhoods



Why GreenScape? Water Pollution

- Many homeowners overuse and misuse pesticides
- 67 million lbs applied on lawns each year
- 2/3 dispose of excess in trash, remainder down drains
- Detectable limits found in 5-10% of wells
- 40-60% of nitrogen applied ends up in surface and groundwater
- Nitrogen, phosphorus main pollutants in Chesapeake Bay, other estuaries



Photo: Britt Skattery, USFWS



GreenScapes: Putting Nature to Work in Your Yard!

- 1) Build and Maintain Healthy Soil
- 2) Plant Right for Your Site
- 3) Capture, Manage and Use Water Wisely
- 4) Integrated Pest Management
- 5) Reduce or Make a Natural Lawn



Step 1 - Build and Maintain Healthy Soil

- Soil is the foundation of your garden
- Test your soil you may not need to waste time and money fertilizing
- If needed, use organic/slow-release
- Sweep fertilizer from walks or driveways back onto your yard or garden to avoid runoff
- Feed your soil with compost
- Mulch adds organic matter, reduces weeds and saves water



Step 1 - Build and Maintain Healthy Soil

- Compost leaves and kitchen fruit and vegetable waste
- Save landfill space, transportation impacts
- Create free compost for soil amendment
- Chip woody waste and tree clippings into mulch for use on-site



Step 2 - Plant Right For Your Site

- Plan - Know your yard and how you use it
- Right Plant - Right Place
- Native Plants



Plan: Naturalistic Design

- Less maintenance
- Less environmental harm
- Increases Habitat
- Benefits wildlife
- Greatest diversity of plants
- Greater seasonal interest
- Less noticeable damage from pests and disease



Plan: Energy Conservation / Cooling

Use trees to shade buildings & pavement

Can lower energy bills by 25%

- A/C bills - 15-50%
- Heating bills - 25-40%



Air temperature up to 25% cooler under tree



Plan: Save Room for Nature

Register Your Backyard as a Wildlife Habitat!

By Providing:

- Food
- Shelter
- Water



Source: <http://www.nwf.org/backyard/>



Plan: Rebuy

- Drip hose made from recycled tires
- **plastic lumber** made from recycled bottles & bags
 - Extremely durable
 - Lasts longer than wood
 - Requires less maintenance



Right Plant - Right Place

- Assess site conditions
- Select plants that thrive in those conditions
- Select plants whose ultimate size, shape fits
- Compatible plants / plant communities
- Avoid invasive plants
- List of invasives on the web



Sun: Swamp milkweed



Shade: Foam flower

<http://www.dcnr.state.pa.us/forestry/wildplant/invasivelist.aspx>



Native Plants

- Best adapted to local conditions and thrive with least care
- Great variety of species for all conditions
- Won't harm natural areas
- Need little if any fertilizer
- High habitat value
- Provide “sense of place”
- Top Ten Natives on the Web

<http://www.nwf.org/backyard/northeast.cfm>



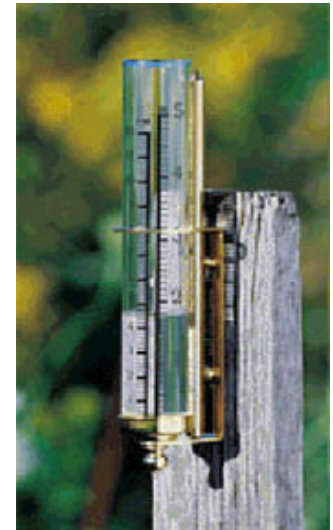
Step 3 - Capture, Manage & Use Water Wisely

- Rain barrels capture rain for later use
- “Disconnect” roof, concrete, asphalt, impermeable areas to minimize runoff
- Slow and allow rain to recharge groundwater



Step 3 – Capture, Manage & Use Water Wisely

- Use plants that need little water – Xeriscaping
- Native plants are adapted to survive
- In the Mid-Atlantic, your brown summer lawn will be green again come fall
- Soaker hoses and drip irrigation puts water where it's needed
- Watering early in the morning is best



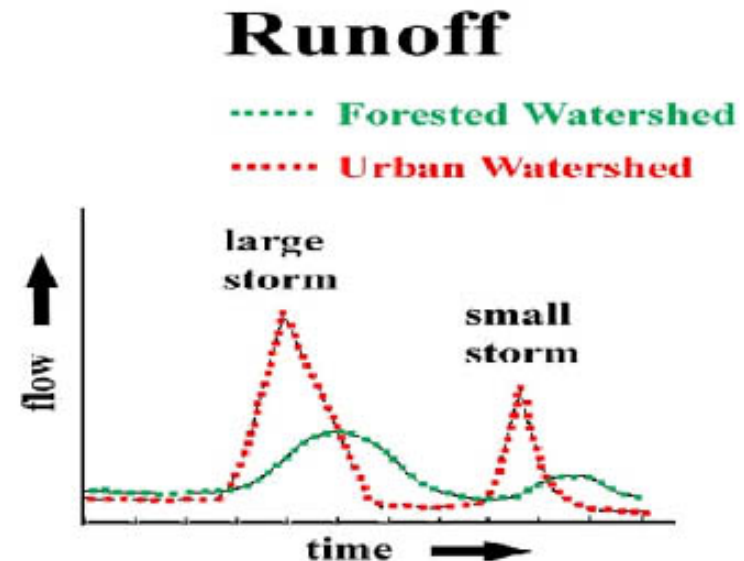
Step 4 - Integrated Pest Management (IPM)

- Most bugs (85-95%) are good bugs
- Monitor and assess
- Cultural controls first
- Mechanical controls
- Least toxic chemicals
- Follow label directions carefully
- Spot treat rather than broadcast



Step 5 – Reduce or Make an Organic Lawn

- Ask: Do I really need all this lawn?
- #1 “crop” in USA!
- When lawns replace forest - stream flooding is much more severe



Storm Water - Every Drop Counts



Step 5 – Reduce or Make an Organic Lawn

- Lawn turf has shallow roots and is not able to stabilize streambanks
- Runoff results in erosion, flooding, aquatic habitat destruction, property damage



Storm Water - Every Drop Counts



Step 5 – Reduce or Make an Organic Lawn

- Where you do need lawn remember:
Good soil = good lawn
- Add organic matter or compost
- pH of 6.5 ideal
- Corn meal gluten for spring
germinating weeds and crabgrass
- Organic slow release fertilizer in the
fall feeds the roots



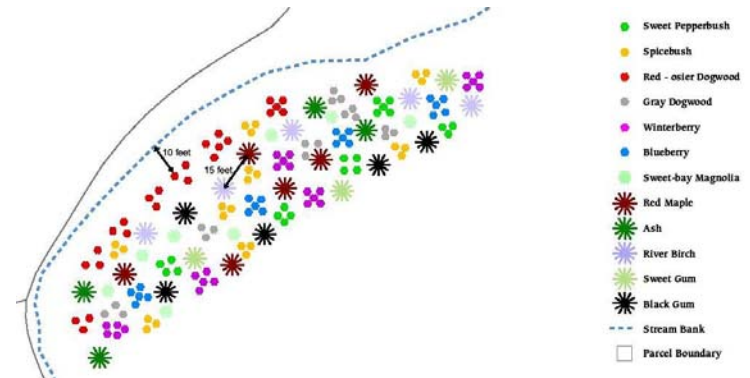
Step 5 – Reduce or Make an Organic Lawn

- Maintain your lawn by mowing high ~ 3 inches
- Don't mow wet grass
- Don't remove more than 1/3 of the leaf
- Don't bother bagging the clippings
- Keep mower blade sharp
- Tune up your engine, use electric mower or even better a new light weight manual mower



GreenScapes are Designed to be Sustainable Landscapes

- Naturalistic Design
- Native Plants
- Right Plant - Right Place
- Plant for the Long Term
- Diversity and Density
- Resource Conservation / Cooling
- Storm Water Retention
- Wildlife Value



GreenScapes are Maintained to be Sustainable Landscapes

- Integrated Pest Management
- Careful Application of Nutrients
- Water Conservation
- Energy Conservation
- Control/Remove Invasive Plants
- Composting / Mulching



Homeowners that GreenScape:

- Reduce, Reuse, Recycle & Rebuy
- Make a difference by preventing pollution, helping to curb climate change, and reducing their “**environmental footprint**”



Thank You

Questions?

For more info ...

**www.epa.gov/reg3esd1/garden or
www.epa.gov/greenscapes**

Steve Donohue

donohue.steven@epa.gov

(215) 814-3215

Join Us!

